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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of

Shinichi SAEKI et al.

Patent No. 7,079,757

App. Cat. No. 09,910,909

Issued: July 18, 2006

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**Mail Stop: ACCOUNTING DIVISION
REFUND BRANCH**

Attorney Docket No. 2001_1037

Confirmation No. 4645

OPTICAL DISC, RECORDING APPARATUS, AND COMPUTER-READABLE
RECORDING MEDIUM

REQUEST FOR REFUND

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Patentees respectfully request a refund of \$200.00 charged to Deposit Account No. 23-0975 on April 27, 2006. The corresponding fee code indicates the charge is for an independent claim. Patentees assert the charge is incorrect.

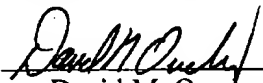
At the time of filing, on July 24, 2001, Patentees' Attorney paid for a total of 4 independent claims, 1 in excess of 3. The Amendment of April 20, 2006 (copy enclosed), amended the previously presented claims. It did not alter the original count of 4 independent claims. Therefore, we can find no reason for this charge to have been posted to the above-identified account.

Adjustment date: 11/28/2006 SDENB081
04/27/2006 CDESSAU 00000001 230975 09910909
01 FC:2201 200.00 CR

Kindly credit \$200.00 to the deposit account of undersigned, no. 23-0975. If there are any questions, please contact Donna Reynolds, Accounting Assistant, at (202) 721-8246.

Respectfully submitted,

Shinichi SAEKI et al.

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November 15, 2006

2001_1037



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Confirmation No. 4645
Shinichi SAEKI et al. : Attorney Docket No. 2001_1037
Serial No. 09/910,909 : Group Art Unit 2616
Filed July 24, 2001 : Examiner Robert Chevalier
OPTICAL DISC,
RECORDING APPARATUS, AND
COMPUTER-READABLE MEDIUM : Mail Stop: Amendment

AMENDMENT

COPY

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of February 9, 2006, please amend the above-identified U.S. Patent application as follows:

Amendments to the Claims

1. (Currently Amended) An optical disc which is readable by a reproducing apparatus that preliminarily reads a table and performs a random access reproduction of a video object by referring to the table, the optical disk including a data area, a time map area, and a program chain area, wherein

the data area-records has recorded therein a video object that includes a plurality of data units, each of which contains at least one picture,

the time map area-records a has recorded therein the table showing recording addresses of data units, the recording addresses corresponding to a plurality of reproduction times that belong to a period during which the video object is reproduced, each of the data units containing a picture to be reproduced at a corresponding one of the plurality of reproduction times, and

the program chain area-records has recorded therein a plurality of sets of cell information, each of which includes a start time and an end time which are used to identify a reproduction section in the video object, the plurality of sets of cell information being recorded in correspondence with reproduction orders.

2. (Currently Amended) The optical disc of Claim 1, wherein

the table further-records has recorded therein difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of the a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

3. (Currently Amended) A recording apparatus for recording video data onto an optical disc, comprising:

an input unit operable to receive input video data to be recorded;

a compressing unit operable to compress the input video data and generate a video object containing a plurality of data units;

a writing unit operable to write data onto the optical disc; and

a control unit operable to control the writing unit, wherein

the control unit is operable to

(a) ~~controls control~~ the writing unit to write the video object onto ~~the~~ a data area of the optical disc,

(b) ~~generates generate~~ a table showing recording addresses of data units, the recording addresses corresponding to a plurality of reproduction times that belong to a period during which the video object is reproduced, each of the data units containing a picture to be reproduced at a corresponding one of the plurality of reproduction times,

(c) ~~controls control~~ the writing unit to write the table into ~~the~~ a time map area of the optical disc,

(d) ~~generates generate~~ a plurality of sets of cell information, each of which includes a start time and an end time which are used to identify a reproduction section in the video object, and

(e) ~~controls control~~ the writing unit to write the plurality of sets of cell information onto ~~the~~ a program chain area of the optical disc so as to correspond to reproduction orders.

4. **(Currently Amended)** The recording apparatus of Claim 3, wherein the table further ~~records~~ has recorded therein difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of ~~the~~ a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

5. **(Currently Amended)** A recording method for use in a recording apparatus for recording onto an optical disc a video object containing a plurality of data units, each of which contains at least one picture, the recording method comprising ~~the steps of:~~

writing data onto a data area of the optical disc;

generating a table showing recording addresses of data units, the recording addresses corresponding to a plurality of reproduction times that belong to a period during which the video object is reproduced, each of the data units containing a picture to be reproduced at a corresponding one of the plurality of reproduction times;

writing the table onto a time map area of the optical disc;

generating a plurality of sets of cell information, each of which includes a start time and an end time which are used to identify a reproduction section in the video object; and

writing the plurality of sets of cell information onto ~~the~~ a program chain area of the optical disc so as to correspond to reproduction orders.

6. (Currently Amended) The recording method of Claim 5, wherein
the table further ~~records~~ has recorded therein difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of ~~the~~ a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

7. (Currently Amended) A reproducing apparatus for reproducing the video object recorded on the optical disc defined in Claim 1, the reproducing apparatus comprising:

a reading unit operable to read data from the optical disc;

a reproducing unit operable to reproduce the video object; and

a control unit operable to control the reading unit and the reproducing unit, wherein the control unit is operable to

(a) ~~receives~~ receive an instruction to reproduce according to the plurality of sets of cell information,

(b) ~~controls~~ control the reading unit to read the table and the plurality of sets of cell information,

(c) ~~refers~~ refer to the read table and ~~identifies~~ identify, for each of the plurality of sets of cell information, a data unit that contains a picture corresponding to the start time and the end time, and

(d) ~~determines~~ determine reproduction sections in accordance with the identified data units and ~~controls~~ control the reading unit and the reproducing unit to reproduce the determined reproduction sections in an order that is determined in accordance with the reproduction orders.

8. (Currently Amended) The reproducing apparatus of Claim 7, wherein
the table further ~~records~~ has recorded therein difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of ~~the~~ a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

9. (Currently Amended) A reproduction method for use in a reproducing apparatus that includes (a) a reading unit operable to read data from the optical disc defined in Claim 1 and (b) a reproducing unit operable to reproduce the video object, the reproduction method comprising the steps of:

receiving an instruction to reproduce according to the plurality of sets of cell information, controlling the reading unit to read the table and the plurality of sets of cell information, referring to the read table and identifying, for each of the plurality of sets of cell information, a data unit that contains a picture corresponding to the start time and the end time, and

determining reproduction sections in accordance with the identified data units and controlling the reading unit and the reproducing unit to reproduce the determined reproduction sections in an order that is determined in accordance with the reproduction orders.

10. (Currently Amended) The reproduction method of Claim 9, wherein the table further records has recorded therein difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of the a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

11. (Currently Amended) A program recorded on a computer-readable recording medium ~~recording a program~~ for use in a recording apparatus ~~that records~~ operable to record onto an optical disc a video object containing a plurality of data units, each of which contains at least one picture, the program allowing the recording apparatus ~~a computer~~ to execute the steps of:

writing data onto a data area of the optical disc;

generating a table showing recording addresses of data units, the recording addresses corresponding to a plurality of reproduction times that belong to a period during which the video object is reproduced, each of the data units containing a picture to be reproduced at a corresponding one of the plurality of reproduction times;

writing the table onto a time map area of the optical disc;

generating a plurality of sets of cell information, each of which includes a start time and an end time which are used to identify a reproduction section in the video object; and

writing the plurality of sets of cell information onto ~~the~~ a program chain area of the optical disc so as to correspond to reproduction orders.

12. (Currently Amended) The ~~program-computer-readable-recording-medium~~ of Claim 11, wherein

the table ~~further-records~~ has recorded thereon difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of ~~the~~ a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

13. (Currently Amended) A program recorded on computer-readable recording medium ~~recording a program~~ for use in a reproducing apparatus that includes (a) a reading unit operable to read data from the optical disc defined in Claim 1 and (b) a reproducing unit operable to reproduce the video object, the program allowing the reproducing apparatus ~~a computer~~ to execute the steps of:

receiving an instruction to reproduce according to the plurality of sets of cell information, controlling the reading unit to read the table and the plurality of sets of cell information, referring to the read table and identifying, for each of the plurality of sets of cell information, a data unit that contains a picture corresponding to the start time and the end time, and

determining reproduction sections in accordance with the identified data units and controlling the reading unit and the reproducing unit to reproduce the determined reproduction sections in an order that is determined in accordance with the reproduction orders.

14. (Currently Amended) The ~~program-computer-readable recording medium~~ of Claim 13, wherein

the table further ~~records~~ has recorded thereon difference times, each of which corresponds to one of the plurality of reproduction times and is a difference between the one of the plurality of reproduction times and a reproduction time of ~~the~~ a first picture of a data unit that includes a picture to be reproduced at the one of the plurality of reproduction times.

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

Claims 1 and 2 have been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claim 1 has been amended so as to address this rejection. As a result, withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

Further, claims 1-14 have been amended to make a number of editorial revisions thereto. These revisions have been made to place the claims in better U.S. form. None of these amendments have been made to narrow the scope of protection of the claims, or to address issues related to patentability, and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

Claims 1, 3, 5, 7, 9, 11 and 13 have been rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,347,187. Claims 1, 3, 5, 7, 9, 11 and 13 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 5, 8, 10, 11, 15 and 17 of copending Application No. 09/910,733. Claims 1-14 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 09/910,711.

Enclosed herewith is a Terminal Disclaimer linking the present application to the above-identified patent and copending applications. As a result, withdrawal of these obviousness-type double patenting rejections is respectfully requested.

Claims 1, 3, 5, 7, 9, 11 and 13 have been rejected under 35 U.S.C. §102(e) as being anticipated by Taira (US 6,617,189). This rejection is respectfully traversed and submitted to be inapplicable to the claims for the following reasons.

Claim 1 is patentable over Taira, since claim 1 recites an optical disc including, in part, a time map area having recorded therein a table showing recording addresses of data units, the recording addresses corresponding to a plurality of reproduction times that belong to a period during which a video object is reproduced, each of the data units containing a picture to be reproduced at a corresponding one of the plurality of reproduction times, and a program chain area having recorded therein a plurality of sets of cell information, each of which includes a start time and an end time which are used to identify a reproduction section in the video object, the

plurality of sets of cell information being recorded in correspondence with reproduction orders. Taira fails to disclose or suggest these features of claim 1.

Taira discloses a recording medium having a data area including a video object and a program chain information table defining at least two program chains. The video object includes a number of cells, each of the cells includes a number of video object units, and each of the video object units includes a navigation pack. The navigation pack includes first control information having a start time and an end time of the presentation of the video object unit and second control information having search addresses of the video object unit and an end address of the last pack in the video object unit. The program chain information table includes a number of program chain items associated with the program chains, each of the program chain items including (1) cell playback information specifying a playback order of video data cells in the program chain, and (2) content information describing the number of cells in the program chain. (See column 34, line 61 – column 35, line 57; column 47, line 43 – column 49, line 54; and Figures 28, 63 and 64).

In the rejection, the navigation pack of Taira including the first control information having a start time and an end time of the presentation of the video object unit and the second control information having search addresses of the video object unit and an end address of the last pack in the video object unit is indicated as corresponding to the claimed time map area. However, it is noted that while the first control information in the navigation pack includes the start and end times of the video object unit and the second control information having search addresses of the video object unit, there is no disclosure or suggestion that the navigation pack provides any correspondence between the search addresses and reproduction times. Instead, the only time information included in the navigation pack are the start and end times of the video object unit as a whole.

Further, the program chain information table including the number of program chain items is indicated as corresponding to the claimed program chain area. However, the program chain information table of Taira defines the playback order of the video data cells based only on the start addresses of the first and last video object units located in each of the video data cells. There is no disclosure or suggestion that the program chain information table includes start and end times as are recited as being included in the program chain area of claim 1.

As a result of the above discussion, it is submitted that claim 1 is clearly patentable over Taira.

As for claims 3, 5, 7, 9, 11 and 13, they are patentable over Taira for reasons similar to those discussed above in support of claim 1. That is, each of these claims recites, in part, a table showing recording addresses of data units, the recording addresses corresponding to a plurality of reproduction times that belong to a period during which a video object is reproduced, each of the data units containing a picture to be reproduced at a corresponding one of the plurality of reproduction times, which feature is not disclosed or suggested by Taira.

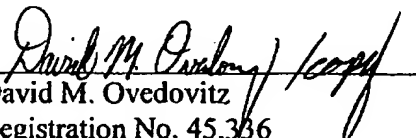
Because of the above-mentioned distinctions, it is believed clear that claims 1-14 are allowable over the reference relied upon in the rejection. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-14. Therefore, it is submitted that claims 1-14 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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April 20, 2006